



DARPA-CG- 35

# Security Classification Guide

TITLE: TALON GOLD PROGRAM

COGNIZANT OFFICE: DIRECTED ENERGY OFFICE

DATE: REVISED MAY 1983

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**DEFENSE ADVANCED RESEARCH PROJECTS AGENCY**

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SECURITY CLASSIFICATION GUIDE

TITLE: TALON GOLD PROGRAM

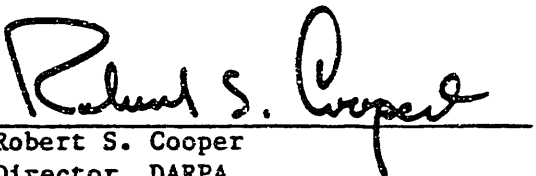
ISSUED BY: DARPA  
DIRECTED ENERGY OFFICE

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Approved By:

  
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## SECTION I

### DEFINITIONS

1. EXPLANATION OF TERMS. The following is a list of abbreviations, acronyms, and terms with the definition or explanation which will be used throughout this guide.

DARPA	Defense Advanced Research Projects Agency
DEO	Directed Energy Office
SD	Air Force Space Division
SD/YN	SD Space Defense Systems Program Office
TG	Talon Gold
ATP	Acquisition, Tracking, and Pointing
HEL	High Energy Laser
IR	Infrared
STP	USAF Space Test Program
STS	Space Transportation System
COMSEC	Communications Security

## SECTION II

### RELEASE OF INFORMATION

#### 1. PUBLIC RELEASE OF OFFICIAL INFORMATION.

Any public release of official information pertaining to the Talon Gold Program is forbidden without prior DARPA approval. The term "release" applies, but is not limited to, articles, speeches, photographs, brochures, advertisements, displays, presentations, etc., on any phase of a Talon Gold Program. Only information previously determined to be unclassified will be considered for public release.

It is incumbent upon contractors or other agencies to screen all information submitted by them for release approval, to ensure that it is both unclassified and technically accurate. Letters of transmittal shall contain certification to this effect. Requests for public release of information shall be mailed to DARPA in the same manner as required for CONFIDENTIAL material. Letters of transmittal shall include the following statement: "This information shall be safeguarded in accordance with the provisions of DoD 5200.1-R for CONFIDENTIAL information pending final determination of its releasability or continued protection as classified defense information." When doubt exists concerning the classified status of a proposed release pertaining to the Talon Gold Program, the final decision shall be rendered by DARPA. All requests for release of information shall be submitted at least 30 days prior to the date needed for approval of such release, and the date by which approval is needed shall be clearly stated.

Contemplated visits of public media representatives shall receive prior coordination with DARPA. All requests for information made by public media representatives shall be referred to DARPA.

Only information which already has been approved for public release may be released without further recourse. Information developed after initial approval for public release must be submitted for review and further processing as outlined in paragraph 1.1 above.

Prime contractors shall ensure that each of their subcontractors comply with the requirements outlined here. Subcontractors must submit any material prepared by them for public release approval through their prime contractor. The latter shall make appropriate comments if he concurs in the release, or he may reject the proposal without further recourse if appropriate.

2. UNILATERAL PUBLIC RELEASE OF OFFICIAL INFORMATION. Unilateral public release of marked or unmarked official information pertaining to the Talon Gold Program is expressly prohibited. Replies to queries may be made only after the express approval of DARPA has been obtained (as outlined in paragraph 1 above). No other dissemination or approval procedure is authorized. This prohibition extends to all publications, both in-house and external, and to all conversations, speeches, or oral statements, except those made in the normal conduct of official business. The need-to-know principle shall be applied at all times.

3. DISSEMINATION OF CLASSIFIED INFORMATION AT SYMPOSIA, SEMINARS, CONFERENCES, ETC. Approvals for such dissemination of classified information must be obtained from the Program Manager at DARPA.

4. DISSEMINATION OF CLASSIFIED INFORMATION TO FOREIGN GOVERNMENTS OR THEIR REPRESENTATIVES. Any activity receiving a request from a foreign government, or a representative thereof, for classified information pertaining to a DARPA HEL Program shall obtain approval from the Program Manager at DARPA.

5. RELEASE OF UNCLASSIFIED TECHNICAL INFORMATION TO RESIDENTS OF FOREIGN COUNTRIES. Approvals for release of such information must be obtained from the Program Manager at DARPA.

6. DECLASSIFICATION INSTRUCTION.

All items classified as the result of this guide are to be marked as follows:

Classified by DARPA CG-35, May 1983, Declassify OADR

Information classified by this guide will be reviewed periodically to determine if the occurrence of events, such as technological advances, foreign development, or official public release has neutralized the basis for classification. In such an event, changes in classification guidance will be incorporated into subsequent revisions to this guide.

### SECTION III

#### SPECIFIC CLASSIFICATION GUIDANCE

1. OBJECTIVES AND ASSOCIATIONS. Descriptions which define or imply general objectives or associations are classified as follows:

Talon Gold as an experimental program for the development of acquisition, tracking, and pointing technology	UNCLASSIFIED
Relation of Talon Gold to the development of generic space-based high energy laser weapons	UNCLASSIFIED
Relation of Talon Gold to specific weapon system applications	SECRET
Relation of Talon Gold to USAF/Space Test Program (STP) or Space Transportation System (STS)	UNCLASSIFIED
Reference to the Talon Gold experiment as including the projection of a laser beam	UNCLASSIFIED
Performance projections related to HEL applications	SECRET

2. ADMINISTRATIVE DATA.

	<u>CLASSIFICATION</u>	<u>REMARKS</u>
Talon Gold funding or budget information or breakdowns	UNCLASSIFIED	
Program schedules for Talon Gold hardware design, fabrication, and system testing	UNCLASSIFIED	
Launch schedule and date for targets or ATP payload	SECRET	Reference to year of launch is unclassified

### 3. STUDIES.

	<u>CLASSIFICATION</u>	<u>REMARKS</u>
Studies containing a description of the Talon Gold Experiment or hardware and revealing specific performance requirements, capabilities, and limitations in acquisition, tracking, and pointing technology	SECRET	
Studies revealing specific details of detection techniques, bandwidths of operation, or operating sequences	SECRET	
Studies identifying or specifying experiment targets, missions, or scenarios for Talon Gold	SECRET	
Studies indicating Talon Gold vulnerability to countermeasures or Talon Gold counter countermeasures techniques	SECRET	
Studies relating Talon Gold to weapon systems, quantitatively	SECRET	

### 4. SYSTEM PERFORMANCE REQUIREMENTS.

Acquisition range	SECRET
Acquisition field of view	SECRET
Acquisition timelines	SECRET
Acquisition wavelengths	SECRET
Tracker range of operation	SECRET
Tracker precision	SECRET
Tracker rates and acceleration	SECRET

	<u>CLASSIFICATION</u>	<u>REMARKS</u>
Pointer precision	SECRET	
Pointer jitter	SECRET	
ATP performance as a function of engagement signatures, background, or input disturbances	SECRET	Classified SECRET even if expressed as relative or normalized performance
5. <u>IR ACQUISITION SYSTEM DESIGN.</u>		
Sensitivity	SECRET	
Detectivity	SECRET	
Detector area	SECRET	
Detector composition	SECRET	Dopant levels or composition ratios are SECRET. Materials are UNCLASSIFIED.
Specific detector temperature	SECRET	The fact that detectors may require cryogenic cooling is UNCLASSIFIED.
Spectral bands	SECRET	
Detector sampling rate	SECRET	
Field of view	SECRET	
Out of field-of-view rejection	SECRET	
Handover accuracy	SECRET	
6. <u>PASSIVE TRACKER SYSTEM DESIGN.</u>		
Sensitivity	SECRET	
Detectivity	SECRET	
Detector area	SECRET	



	<u>CLASSIFICATION</u>	<u>REMARKS</u>
Detector composition	SECRET	Dopant levels or composition ratios are SECRET. Materials are UNCLASSIFIED.
Specific detector temperature	SECRET	The fact that detectors may require cryogenic cooling is UNCLASSIFIED.
Spectral bands	SECRET	
Detector sampling rate	SECRET	
Field of view	SECRET	
Out of field-of-view rejection	SECRET	
Track accuracy	SECRET	
Track algorithm	SECRET	Generic description of algorithms, e.g., centroid, is UNCLASSIFIED.
Optical resolution	SECRET	
Track rate	SECRET	

7. VISIBLE TRACKER SYSTEM DESIGN.

Laser illuminator	UNCLASSIFIED	The use of a laser illuminator or illuminator is UNCLASSIFIED.
Detector readout rate, duty cycle	SECRET	
Wavelength	SECRET	
Track accuracy	SECRET	

	<u>CLASSIFICATION</u>	<u>REMARKS</u>
Track algorithm	SECRET	Generic description of algorithms, e.g., centroid, is UNCLASSIFIED.
Field of view	SECRET	
Out of field-of-view rejection	SECRET	
Operating range	SECRET	
Track rate	SECRET	
Illuminator performance parameters	SECRET	

8. POINTING SYSTEM DESIGN.

Inertial reference stability	SECRET	
Control system architecture	UNCLASSIFIED	
Control system bandwidths	SECRET	
Stabilization precision and accuracy	SECRET	
Boresight and alignment accuracy	SECRET	
Open-loop pointing accuracy (point ahead)	SECRET	
Marker laser	UNCLASSIFIED	The use of a marker laser or marker is UNCLASSIFIED.
Marker performance parameters	SECRET	

9. COMMUNICATIONS SYSTEM DESIGN.

Association of specific COMSEC equipment with Talon Gold	UNCLASSIFIED
Payload Health Data	UNCLASSIFIED

	<u>CLASSIFICATION</u>	<u>REMARKS</u>
Operational commands	SECRET	
Flight test data	SECRET	
Descriptions of COMSEC equipment	SECRET	The design, operational capability, and characteristics of crypto systems will be classified in accordance with COMSEC directives.

#### 10. SUPPORT SYSTEM DESIGN.

Brassboard designs and/or scaled measured data which reveal performance requirements, capabilities, or limitations of the Talon Gold system	SECRET
Target designs or performance details which reveal Talon Gold performance levels or characteristics specified in Section III-4	SECRET
Ground support or test system design or performance details which reveal Talon Gold performance levels or characteristics specified in Section III-4	SECRET

#### 11. TALON GOLD HARDWARE.

Components and subsystems	UNCLASSIFIED - SECRET	Classification should be based on the information revealed by physical or visual access.
Assembled ATP payload	SECRET	
Assembled targets	UNCLASSIFIED - SECRET	Classification should be based on the information revealed by physical or visual access.

	<u>CLASSIFICATION</u>	<u>REMARKS</u>
External view, sketches, photographs, etc. of assembled payload or targets	UNCLASSIFIED	If parameters delineated in Section III-4 are not revealed.

12. FLIGHT OPERATIONS.

Prelaunch planning of events	UNCLASSIFIED	As long as STS number or launch date is not revealed.
Trajectories	SECRET	For targets or STS
Orbital parameters	SECRET	For targets or STS
Launch schedule and date	SECRET	Reference by year is UNCLASSIFIED
Mission operations sequence	SECRET	
Mission timelines	SECRET	

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